

**REMARKS**

Claims 1 and 3-15 are pending in this application. By this Amendment, claims 1, 3-6 and 8-15 are amended and claim 2 is canceled. The specification supports the amended claims at least at paragraph 0037, and Tables 1 and 2. No new matter is added. In view of the amendments and the following remarks, reconsideration and withdrawal are respectfully requested.

**I. Claim rejection under §112, second paragraph**

The Office Action rejects claims 1-15 under 35 U.S.C. §112, second paragraph. In particular, the Office Action states that: claim 1, the recitation "high differentiating power" is unclear; claim 1, "the *Ficus stipulata*" has no antecedent; claims 1, 6 and 12-15, the recitation "at least one kind of thidiazuron" is unclear; claims 3 and 8, the recitations "takes root through a cutting" and "implanted therein" are unclear; and claim 4, "less than 6 weeks after implanting" is unclear.

Applicants do not necessarily agree that the above claim language renders the scope and meaning of the claims indefinite to one of ordinary skill in the art. However, in order to advance prosecution of the application, and without narrowing the intended scope of the claims in any way, Applicants amend the claims to address each of the above issues.

Amended claim 1 recites "high differentiating potential." Amended claim 1 also recites "a *Ficus stipulata*." Amended claims 1, 6 and 12-15 delete the phrase "at least one kind of." Amended claims 3 and 8 recite that the tissue originated from a plant body "from rooted cuttings after being aseptically implanted." Amended claim 4 recites that the tissue is "from the rooted cuttings of less than 6 weeks."

As amended, all of claims 1-15 satisfy the requirements of 35 U.S.C. §112, second paragraph. Accordingly, Applicants respectfully request reconsideration and withdrawal of the rejection.

**II. Rejection of claims 1-5 and 8-11 under §102/§103**

The Office Action rejects claims 1-5 and 8-11 under 35 U.S.C. §102(b), or in the alternative under 35 U.S.C. §103(a) over "A tissue culture technique for seed germination and asexual propagation of the jelly-fig (*Ficus Pumila* L. Var. Awkeotsang)," Botanic Bulletin of Academia Sinica, Vol. 28, No. 2, pp. 185-188 (1987) by Chen, M. ("Chen"). Applicants respectfully traverse the rejection.

Claim 1 is directed to cultured *Ficus* cells obtained by culturing *Ficus* tissue in a culture medium containing 0.1 to 10  $\mu$ M thidiazuron and 8.9 to 44.4 nM benzyladenine (BA). Contrary to Office Action's contention, Chen does not teach culturing *Ficus* under the conditions as claimed.

Chen describes tissue culture for germinating *Ficus pumila*, in MS media that includes benzyladenine. However, Chen does not teach or suggest, and in fact teaches away from, culturing *Ficus* in media containing 8.9 to 44.4 nM benzyladenine.

Specifically, Chen discloses the use of growth regulators n-benzyladenine (BA) and indole-3-butyric acid (IBA) at concentrations of 0, 0.1, 0.5 and 1.0 mg/l in hyponex medium (Chen, page 186, second paragraph). However, Chen reports that *Ficus* cell and tissue growth do not benefit from the addition of BA or IBA. The addition of these hormones "resulted in the wilting of leaves and insufficient production of roots even at low concentrations." (Chen, page 188, second paragraph). Chen also teaches that "Davies and Joiner (1987) reported that IBA stimulated rooting of leaf-bud cuttings of *Ficus pumila*, but IBA at the tested concentrations harmed the growth of jelly-fig axillary bud and rooting." (Id.) (emphasis added). Chen then concludes that "the optimum cloning efficiency was obtained in the hormone-free hyponex medium." (Id.) (emphasis added).

Contrary to Chen's teaching of hormone-free medium, Applicants discovered that medium containing 0.002 to 0.01 mg/l (i.e., 8.9 to 44.4 nM) benzyladenine produced superior

results that are unexpected from the teachings of Chen. The experiments detailed in the specification at pages 6-9, and the data shown in Tables 1 and 2, show the benefit of including low concentrations of benzyladenine in the culture medium. Contrary to the express teachings of Chen, the culturing of *Ficus* in the presence of benzyladenine is improved over a hormone-free medium. Furthermore, Chen fails to include any teaching or suggestion to include thidiazuron in the culture medium. Thus, Chen does not teach or suggest, and would not have rendered obvious, the claimed cultured *Ficus* cells.

For at least this reason alone, the rejection of claim 1-5 and 8-11 should be withdrawn. Accordingly, Applicants respectfully request reconsideration and withdrawal of the rejection.

### **III. Rejection of claims 6-7 and 12-15 under §103**

The Office Action rejects claims 6-7 and 12-15 under 35 U.S.C. §103(a) over Chen in view of "Improvement of in-vitro multiplication from leaf explants and leaf calus by thidiazuron" Phyton, Vol. 53, No. 1, pp. 51-56 (1992), by Baustista del Amo-Marco, J. et al. ("Amo-Marco"). Applicants respectfully traverse the rejection.

Claim 6 is directed to a method for culturing *Ficus* tissue that includes subculturing the cells of claim 1. Thus, claim 6 is directed to a method for culturing *Ficus* tissue that includes subculturing a part of a *Ficus* tissue, in a culture medium containing thidiazuron and benzyladenine, wherein the *Ficus* tissue is selected from the group consisting of a shoot apex, a stem, a stem node, an embryonic cell and a root. Chen and Amo-Marco do not teach or suggest this culturing method.

First, as detailed in the above remarks, Chen does not teach or suggest a culture medium containing thidiazuron and benzyladenine as claimed. Amo-Marco does not remedy Chen's deficient teachings. Amo-Marco describes a method to induce adventitious buds in *Ficus lyrata*. However, like Chen, Amo-Marco includes extremely high benzyladenine levels

in its culture medium (Amo-Marco, Table 2). Amo-Marco's 2.2 to 4.4  $\mu\text{M}$  benzyladenine is approximately 100 fold greater than that recited in the claimed method. In combination with the express teachings of Chen, as detailed in the above comments, one of ordinary skill in the art would not have been motivated to include any amount of benzyladenine in a medium for culturing *Ficus stipulata*. For at least this reason alone, Chen and Amo-Marcos would not have taught or suggested the claimed culturing method.

Second, Amo-Marco reports a method that includes excised leaf explants and calluses of leaf segments (Amo-Marco, Abstract). Amo-Marco does not teach or suggest culturing methods that utilize a *Ficus* shoot apex, stem, stem node, embryonic cell or root tissue as claimed. One of ordinary skill in the art would have recognized that Amo-Marco's leaf-related technique cannot necessarily be applied to other site related techniques, even from the same plant species. Furthermore, Amo-Marco fails to include any teaching or suggestion that its leaf-related technique could in any way be applied to other site related techniques, such as the shoot apex, stem, stem node, embryonic cell or root tissue. For this additional reason, Chen and Amo-Marco would not have taught or suggested the claimed culturing method.

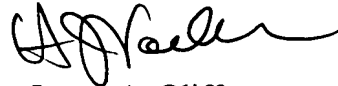
For all of the above reasons, Chen and Amo-Marco, alone or in combination, would not have rendered obvious the culturing method of claims 6-7 and 12-15. Accordingly, Applicants respectfully request reconsideration and withdrawal of the rejection.

#### **IV. Conclusion**

In view of the foregoing, it is respectfully submitted that this application is in condition for allowance. Favorable reconsideration and prompt allowance of claims 1 and 3-15 are earnestly solicited.

Should the Examiner believe that anything further would be desirable in order to place this application in even better condition for allowance, the Examiner is invited to contact the undersigned at the telephone number set forth below.

Respectfully submitted,



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